

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application No.: 10/674,667  
Filing Date: September 30, 2003  
Applicant: Francis M. Creighton IV  
Group Art Unit: 3737  
Examiner: John Fernando Ramirez  
Title: EFFICIENT MAGNET SYSTEM FOR  
MAGNETICALLY-ASSISTED SURGERY  
Attorney Docket: 5236-000440/US

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Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**REPLY BRIEF**

Sir:

In response to the Examiner's Answer of February 4, 2008, Applicant has provided the following Remarks. To the extent that the Examiner's new grounds of rejection may be considered as reopening prosecution, the Appellant's hereby elect to request reinstatement of the Appeal.

**1. 1<sup>st</sup> GROUND OF REJECTION ON APPEAL**

Does the invention set forth in Claims 39 and 41 particularly point out and distinctly claim the subject matter that Applicant regards as the invention?

The Appellants submit that one skilled in the art at the time of the invention would clearly have understood that "the same selected operating point" merely describes the position of the magnetic field generated by the claimed magnet, and therefore does not require separate antecedent basis.

The Appellants further submit that the invention claimed does not have to be described in *ipsis verbis* in order to satisfy the written description requirement of §112. *In re Wright*, 866 F.2d 422, 9 USPQ2d 1649, 1650 (C.A. Fed. 1989). The meaning of the terms in dispute need only be sufficiently described in the specification to inform a person of ordinary skill what the language is intended to encompass. *Id.* Accordingly, Appellants respectfully submit that there is sufficient disclosure of the invention as claimed in claim 39, so as to enable a person of ordinary skill in the art to which it pertains to understand that "the same selected operating point" merely describes the position of the magnetic field, and to make and use the invention. Therefore, Appellants respectfully submit that claim 39 complies with 35 U.S.C. 112.

With regard to claim 41, the Appellants submit that one skilled in the art would understand the phrase "an at least approximately curved" back face to describe the back face as being, at least approximately, curved in shape. Accordingly, Appellants respectfully submit that claim 39 complies with 35 U.S.C. 112.

## 2<sup>nd</sup> GROUND OF REJECTION ON APPEAL

Is the invention set forth in Claims 39, 41, and 45-47 anticipated by Holcomb?

The Examiner's Answer states on page 5 that *Holcomb* discloses magnet segments that provide a "magnetic field in a selected direction at an operating point spaced from the magnet."

However, pages 7 and 10 of the Examiner's Answer clearly acknowledge the contrary, that *Holcomb* discloses a quadrupole formed of (4) magnets whose "gradient is concentrated on the center of each magnet", which generates a non-uniform field as depicted in Fig. 7 of *Holcomb*. (*Holcomb* states that Fig. 7 is the field of the invention, the field gradient of which has a steep slope; c. 14, ll. 6-15).

Giving the claims their broadest reasonable interpretation consistent with the specification<sup>1</sup>, *Holcomb*'s non-uniform steep-sloped magnetic field cannot reasonably be construed to describe the claimed "magnetic field in a select direction", as Appellants describe and show in Figures 9-20 of the specification. Appellants claim and describe a magnet having a plurality of segments that provide a magnetic field in a uniform selected direction (F), at an operating point spaced from the magnet (506), as shown in Fig. 13, ¶ [0076] of the specification. Contrary to the claimed device, *Holcomb* does not disclose a magnet generating a uniform field in a selected direction, but rather produces a field of varying directions at a point spaced from the magnet (see *Holcomb*, Fig. 7). Thus, *Holcomb* cannot anticipate the magnet of claims 39, 41, and 45-47.

<sup>1</sup> See *In Re Buszard*, 504 F.3d 1354; 84 U.S.P.Q.2d 1749 (2007). (where the Federal Circuit stated that the claims may be given their broadest interpretation consistent with the specification, and reversed a BPAI decision based on the finding that it was not a reasonable claim interpretation to equate "flexible" with a cited reference's teaching of "rigid").

## 2. 3<sup>rd</sup> GROUND OF REJECTION ON APPEAL

Is the invention set forth in Claims 40 and 51-52 non-obvious over Holcomb (U.S. Pat. No. 6,042,531) in view of Holcomb (U.S. Pat. No. 5,312,321)?

The Examiner's Answer states on page 6 that *Holcomb* discloses magnet segments that provide a "magnetic field in a selected direction at an operating point spaced from the magnet." The Examiner's Answer further states on page 7 that it would have been obvious to modify *Holcomb* '531 based on *Holcomb* '321 because such modification "would provide that the magnetic field and its gradient is concentrated on the central axis of each magnet rather than being distributed uniformly over the face."

The Examiner's Answer clearly acknowledge that *Holcomb* does not generate a field distributed uniformly over the face of the magnet, contrary to the Appellant's uniform magnetic field in a selected direction. (compare *Holcomb*'s quadrupole field, Fig. 7 with the field in Appellant's specification, Fig's 14-20).

Giving the claims their broadest reasonable interpretation consistent with the specification<sup>2</sup>, *Holcomb*'s non-uniform steep-sloped magnetic field cannot reasonably be construed to describe Appellant's claimed magnetic field in a uniform selected direction (F), at an operating point spaced from the magnet (506), as shown in Fig. 13, ¶ [0076] of the specification. As such, the Appellants submit that claims 40 and 51-52 are not obvious in view of the cited references.

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<sup>2</sup> See *In Re Buszard*, 504 F.3d 1354; 84 U.S.P.Q.2d 1749 (2007). (where the Federal Circuit stated that the claims may be given their broadest interpretation consistent with the specification, and reversed a BPAI decision based on the finding that it was not a reasonable claim interpretation to equate "flexible" with a cited reference's teaching of "rigid").

### 3. 4<sup>th</sup> GROUND OF REJECTION ON APPEAL

Is the invention set forth in claims 39-41, 45-47, 51-52 anticipated by Leupold?

The Final Office Action states on page 8 that *Leupold* discloses a magnet having a plurality of segments that are magnetized to provide a "magnetic field in a selected direction at an operating point spaced from the magnet."

However, *Leupold* discloses magnet segments having varying magnetization directions for generating a field H within the magnet's internal volume or cavity (17), rather than a field that is spaced from the magnet. (*Leupold* , c. 4 ll. 45-49)

Contrary to the magnet disclosed in *Leupold*, the claimed magnet is comprised of segments each magnetized to provide the maximum magnetic field in a selected direction at the same selected operating point spaced from the front face of the magnet. Unlike the field within the interior of *Leupold's* cylindrical magnet, which is too constraining to be useful as an operating point, Appellant's magnet segments are configured to generate a magnetic field at an operating point spaced from the external front face of the magnet.

As *Leupold* does not disclose or suggest a magnetic field in a selected direction at an operating point spaced from the magnet, the Appellant submits that *Leupold* cannot anticipate the magnet of claims 39-41, 45-47, 51-52.

For the foregoing reasons, Appellants submit that the rejection of the claims should be reversed for the reasons set forth in Applicants' Brief on Appeal and in this Reply Brief.

Respectfully submitted,



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CERTIFICATE OF TRANSMITTAL

I certify that on February 21, 2008, APPLICANTS' REPLY BRIEF was electronically filed with the U.S. Patent and Trademark Office, address to Commissioner for Patents, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450.